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Minerals Management Service's Offshore Program:
Deepwater Gulf of Mexico — Advancements in Technology

Since its creation in 1982, the Minerals Management Service (MMS) has managed offshore oil and gas exploration in the 1.76 billion acres of the Outer Continental Shelf (OCS). The Gulf of Mexico (GOM) has been a major supplier of oil and gas to America for nearly half a century. With declining production from its near-shore shallow waters, energy companies have focused their attention on oil and gas resources in water depths of 1,000 feet and beyond. Their progress in developing these resources has made the GOM the focal point of deep water oil and gas exploration and production in the world.

With the energy industry's migration to deeper waters in the search for additional oil and gas reserves, MMS staff has seen an increase in the number of approvals sought for first-time use of technology in the GOM.

Approvals for new technology to be used in deepwater operations reached record-breaking levels in 2006. Approximately 30 approvals were granted by MMS for technology never used before in offshore energy exploration and production in the GOM.

A high-pressure protection system for pipelines, the use of pre-set polyester moorings for deepwater drilling rigs, a subsea pump that allows enhanced oil recovery and a floating production, storage and offloading facility are just four examples of technology advancement in offshore energy exploration and production that MMS approved in 2006.

These technological advances represent engineering systems being used for the first time in the Gulf of Mexico. Offshore operators are required by MMS to gain approval for new technology before submitting development and operation plans that incorporate the new technology into the operator's activities in federal waters. The approvals are part of the review process that's required for lease operations in deepwater Gulf of Mexico, in water depths greater than 1000 feet.

Through the approval process, MMS verifies that the new systems are technically sound and safe. Reviewed by MMS petroleum and structural engineers, the new technology is approved for use only after hazard analyses are conducted. The engineers consider the many different conditions that can exist offshore and also confirm that there is a proven method to shut-down operations in the case of a failure. This approval process incorporates two overriding goals of MMS: to increase the safety of the people doing the work and to protect the ocean environment.

MMS has the responsibility to ensure that industry's offshore operations incorporate the safest technologies that are available.

In 2006, MMS spent approximately $1.8 million funding research in offshore technology which can range from developing improvements in design standards to studying the effectiveness of a testing methodology.

Each year, engineers from MMS's Alaska, Pacific and Gulf of Mexico regions suggest topics and technology for review, which engineering research firms, universities and government laboratories enter into contracts with MMS to conduct. MMS engineers are always looking ahead to the next evolution in offshore oil and gas technology.

A Word on the Budget
The fiscal year 2007 budget included $2.1 million for safety and environmental protection. As of February 2007, the fiscal year 2007 budget appropriation has not been enacted by Congress. At present, a Continuing Resolution is in effect that funds the government through Feb. 15, 2007.

The President's proposed budget for fiscal 2008 includes $1.3 million for deepwater safety to improve capabilities of regulating the new and sophisticated technology required in order to explore and produce in the challenging areas of ultra deepwater.

MMS manages offshore oil and gas exploration as well as renewable and alternative energy sources such as wind, wave, and solar on 1.76 billion acres of the Outer Continental Shelf while protecting the human, marine, and coastal environments. MMS also collects, accounts for, and disburses mineral revenues from Federal and American Indian lands, sharing revenues with states, American Indians and individual lease holders, and the U.S. Treasury. The revenues are also contributed to the Land and Water Conservation Fund and other special use funds. In Fiscal Year 2006, disbursements were made of approximately $12.8 billion, totaling nearly $164.9 billion since 1982.

For more information on the Minerals Management Service, go to www.mms.gov.

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